



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/747,327	12/21/2000	John L. Creigh	36981/SDB/B600	1292

7590 04/22/2004

CHRISTOPHER C. WINSLADE
MCANDREWS, HELD & MALLOY
500 W. MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

LOGSDON, JOSEPH B

ART UNIT	PAPER NUMBER
2662	10

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/747,327

Applicant(s)

CREIGH, JOHN L.

Examiner

Joe Logsdon

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Objections:

1. The claims are objected to because of the following informalities:

- i. In claims 2 and 3, "transmission schemes" should be replaced with - -
transmission encoding schemes- -

Appropriate correction is required.

Claim Rejections—35 U.S.C. 112, Second Paragraph:

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4-8, 15, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4-6 and 8 use the terminology, "resolving to a slave device" or "resolving to a master device." These expressions are not commonly used in the art and their meaning is unclear. Claim 7 depends on claim 6 and is therefore similarly rejected.

Claim 15 recites, "channel A IDLE symbols." The meaning of this expression is unclear. Claim 16 depends on claim 15 and is therefore similarly rejected.

Claim Rejections—35 U.S.C. 102(b):

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Suomi et al.

With regard to claim 9, Suomi et al. teaches a method of achieving a communication link between a pair of transceivers (a pair of modems), where one transceiver is a master device (data modem) and the other transceiver is a slave device (remote data modem), the method comprising generating, at the master device, a plurality of encoded symbols (which convey the compression parameter information) according to a first transmission encoding scheme; transmitting the encoded symbols to the slave device; determining, at the master device, if a link is achieved with the slave device; and changing the encoding scheme at the master device if no link is achieved with the slave device (a handshaking procedure is used to determine the compression parameters, which determine the code to be used) (abstract; claim 10).

With regard to claim 12, Suomi et al. teaches a method of achieving a communication link between a pair of transceivers, where one transceiver is a master device (data modem) and the other transceiver is a slave device (remote data modem), the method comprising generating, at the master device, a plurality of encoded symbols according to a first transmission encoding scheme (the compression parameters that are to be used are transmitted as symbols); transmitting the encoded symbols to the slave device (handshaking between the two modems is used to

Art Unit: 2662

determine the compression parameters); processing the encoded symbols at the slave device to determine the encoding scheme utilized by the master device (the remote data modem processes the symbols that convey the compression parameters); and setting the encoding type of the slave device to match that of the master device (the compression parameters are set through handshaking), if the encoding type of the slave device is set to a different encoding type (abstract; claim 10).

Claim Rejections—35 U.S.C. 102(e):

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Oshikiri et al.

Oshikiri et al. teaches an entity that generates a plurality of encoded symbols according to one of at least two encoding schemes; wherein the entity selects between the at least two encoding schemes (abstract). The entity is a physical layer entity (PHY) because the encoding function occurs at the physical layer. The PHY layer also performs other functions, so the PHY

Art Unit: 2662

layer comprises a sublayer that performs the function of encoding (called a physical coding sublayer (PCS)).

Claim Rejections—35 U.S.C. 103(a):

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshikiri et al. in view of Hunt et al.

With regard to claims 2 and 3, Oshikiri et al. fails to teach that the transmission scheme is based on either a 1000BASE-T (i.e., gigabit Ethernet) standard or a legacy standard. Hunt et al. teaches the use of a legacy standard and a gigabit Ethernet standard (column 2, lines 34-46). It would have been obvious to one of ordinary skill in the art to modify the invention of Oshikiri et al. so that it uses a legacy or a 1000BASE-T standard, as in Hunt et al., because such an arrangement would enable the system to operate under either of two well known standards.

10. Claims 10, 11, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suomi et al. in view of Hunt et al.

Art Unit: 2662

With regard to claims 10, 11, 13, and 14, Suomi et al. fails to teach that the transmission scheme is based on either a 1000BASE-T (i.e., gigabit Ethernet) standard or a legacy standard. Hunt et al. teaches the use of a legacy standard and a gigabit Ethernet standard (column 2, lines 34-46). It would have been obvious to one of ordinary skill in the art to modify the invention of Oshikiri et al. so that it uses a legacy or a 1000BASE-T standard, as in Hunt et al., because such an arrangement would enable the system to operate under either of two well known standards.

11. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshikiri et al. in view of Suomi et al.

With regard to claim 4, Oshikiri et al. fails to teach that the PHY, acting as a slave device, monitors data transmitted by a remote master device, determines the encoding type of the remote master device, and selects the corresponding encoding scheme. Suomi et al. teaches that the PHY (remote data modem), acting as a slave device, monitors data transmitted by a remote master device (data modem, which is remote relative to the remote data modem), determines the encoding type of the remote master device, and selects the corresponding encoding scheme (the data modem and the remote data modem together determine the compression scheme (a type of coding scheme) using handshaking) (abstract). It would have been obvious to one of ordinary skill in the art to modify the invention of Oshikiri et al. so that it teaches that the PHY (remote data modem), acting as a slave device, monitors data transmitted by a remote master device (data modem, which is remote relative to the remote data modem), determine the encoding type of the remote master device, and select the corresponding encoding scheme, as in Suomi et al., because

Art Unit: 2662

such an arrangement would enable the devices to communicate using a code that both devices are capable of using.

With regard to claim 5, Oshikiri et al. fails to teach that the PHY, acting as a master device, transmits data to a remote slave device, determines whether a link is achieved with the remote slave device, and selects a different encoding scheme if a link is not established. Suomi et al. teaches that the PHY (data modem), acting as a master device, transmits data to a remote slave device (remote data modem), determines whether a link is achieved with the remote slave device, and selects a different encoding scheme if a link is not established (a handshaking procedure is used to determine the compression parameters (compression parameters specify the code that is used) (abstract). It would have been obvious to one of ordinary skill in the art to modify the invention of Oshikiri et al. so that it teaches that the PHY, acting as a master device, transmits data to a remote slave device, determines whether a link is achieved with the remote slave device, and selects a different encoding scheme if a link is not established, as in Suomi et al., because such an arrangement would enable the devices to communicate using a code that both devices are capable of using.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Watanabe et al. and Chennakeshu et al. are cited to show the state of the art.

Art Unit: 2662

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Logsdon whose telephone number is (703) 305-2419. The examiner can normally be reached on Monday through Friday from 10:00 am to 6:30 pm.

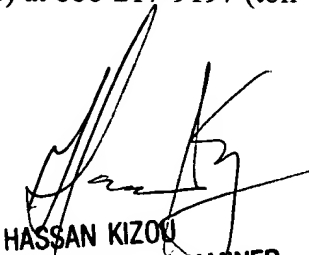
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on 703-305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Joe Logsdon

Patent Examiner

Sunday, April 11, 2004


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600